

square root has been omitted ; on following the author's advice to calculate the P.E. for a given case on that page, I find that Castle's value corresponds neither to the correct nor to the faulty formula, the correct value being  $\pm 1.19$  instead of  $\pm 3.97$  per cent. Work on interference mentioned on p. 36 was done on the mouse, not the rat. In table 2, the phenotype of  $t^0/t^1$  in the mouse is erroneously given as tailless, though a correct statement appears in the text of a later section. The human MN system of blood groups does not contain individuals carrying neither of the genes M or N (p. 91). The order of the multiple alleles of the white eye series of *Drosophila* (p. 101) is wrong. Homozygotes for dominant spotting in the mouse do not die of an "apparent malnutrition" (p. 103), but of a well-analyzed anæmia. The death of  $t^0/t^0$  lethals in the mouse (p. 105) takes place on the seventh day of gestation, not the eleventh. The compilation of the author index leaves much to be desired.

The reviewer finds it extremely embarrassing to have to make all these critical remarks in the case of an author who, since the beginning of this century, has been a pioneer of mammalian genetics, and whose original contributions to this field have been of outstanding and lasting value. All the inaccuracies are due to obvious oversights, and if critical remarks have been made, this does not mean that the book has no positive qualities. The general aspect of mammalian genetics as seen by a man of Castle's wide experience is very well worth reading, and the excellent illustrations should prove invaluable for lecturing purposes.

H. G. HILL.

**de Beer, G. R.** *Embryos and Ancestors.* (Monographs on Animal Biology.) Oxford, 1940. Oxford University Press (Humphrey Milford). Pp. x+108. Price 7s. 6d.

PERHAPS one has to go back to the Phlogiston Theory to find an example of a faulty scientific theory whose corpse has so much hampered progress as Haeckel's "Biogenetic Law." This "recapitulation theory"

maintained that new features of evolutionary significance are added at the end of development, and that the embryo is hence a kind of history of phylogeny in condensed form. The validity of this theory has long been in doubt, but it died hard. Now Dr. de Beer has brought together all the relevant arguments to show that "gerontomorphosis," that is, the addition of features at the end of ontogeny, plays but a minor rôle in phylogeny, and soon leads to a dead end ; but "paedomorphosis," the shedding of the adult stages of ontogeny, leaves the embryo in a plastic state to follow completely new lines of development, not least because the genes, which originally governed late stages, have now become available for other and new duties. The present book is the second edition of the author's *Embryology and Evolution* enlarged and brought up to date, though not fundamentally changed. It can be warmly recommended to all students of biology.

F. R. SIMPSON.

**Waddington, C. H.** *Organisers and Genes.* Cambridge Biological Series. London, 1940. Cambridge University Press. Pp. x+160. Price 12s. 6d. net.

IN this book the author attempts to bring about a synthesis between the facts of genetics and of experimental embryology. Dr. Waddington is singularly fitted for this task, as he has first-hand experience in both these fields, and the results of several of his recent researches are incorporated in this work. This clear critical survey of the situation will provide plenty of food for thought for biologists, and deserves a wide circulation.

F. R. SIMPSON.

## SOCIOLOGY

*The Criminal Statistics England and Wales*, 1938. Cmd. 6167. London, 1940. H.M.S.O. Price 4s.

To some people crime and criminals are attractive because it is assumed that there